the effectiveness of either of these remedies depends on the concentration of all executive and administrative powers in the hands of a competent and vigorous State Director of Public Health.

Comment.—The California State Board of Public Health maintains a Bureau of County Health Work that devotes its whole efforts to the organization of full-time county health units, and with marked success. The plan of State district health organization has been demonstrated as impractical, not only in California, but in other states as well. Until such time as the county is abolished as a local unit of government, public health legislation must conform to existing legal standards. Whenever the counties may consent to consolidation into units, composed of groups of counties. public health laws will naturally conform to the general legal structure that consolidation would bring.

It is believed that the present personnel and present appropriations allotted to the State Board of Public Health enable full service to the public and without placing undue burdens upon taxpayers. The present director of the State Department of Public Health has served efficiently under five administrations of State government, and, since 1920, when he assumed office, most outstanding records in communicable disease control and promotion of public health have been achieved. To question the competence and efficiency of the California State Board of Public Health and the Director of the Department indicates gross ignorance of the public health record of California.

* * *

Final Comment. — With due deference to whatever profound knowledge the authors of the book here discussed may possess along academic lines, it is our belief that more study might have advantageously been given by them, before venturing to such interpretations, with the positive commitments included in the fourteen "conclusions" here commented upon.

A. M. A. WINS AT WASHINGTON, D. C.

Press Clippings Tell the Story.—Press dispatches dated July 26, Washington, D. C., at a time when this August issue of CALIFORNIA AND WESTERN MEDICINE is in press, bring the happy tidings that efforts of the United States Departmen of Justice, under the leadership of Assistant Attorney General Thurman Arnold, to invoke the Sherman anti-trust law of the year 1891 against the American Medical Association have come to naught, through a ruling handed down by Justice James M. Proctor of the District of Columbia Federal Court.*

For further details, see under "Press Clippings," on page 130 of this issue.

California Medical Association members who failed to note the press dispatches referred to, should take the time to read this important news.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 116.

* On July 31, the U. S. Department of Justice asked the United States Court of Appeals to overrule the lower court decision.

EDITORIAL COMMENT†

WEATHER AND MEDICINE

The supposition that environmental factors influence the living organism is not new: no less a person than Hippocrates discussed it. Recognition of these influences has increased with the emergence of medicine from the early chaos of speculation and ignorance. The interwoven research of physicists, meteorologists, mathematicians and medical men has laid the foundation of a new branch of medical science: "Meteorobiology." The mysticism of the ancients has been eliminated, while speculation has been placed upon such a mathematical basis that it may almost be said to pertain to the realm of proved fact.

Introduced by the Norwegian school of meteorologists, a common interpretation for meteorological phenomena obviates the earlier contradictory results of various researchers. Previously, each author based his observations upon some different, uncorrelated factor such as temperature, barometric pressure or humidity; now, Bjerknes' "Front"-theory has been generally adopted. In this theory each factor is demonstrated as part of a whole syndrome, and it is this syndrome of events, occurring in forward or reverse order, which influences the living organism. Popularly, this is called "change of weather."

The most important cause of weather change is the passage of the so-called "discontinuity surface" which separates air masses of opposite physical characteristics traveling in opposite directions. The two main types of air masses are the polar, originating over the polar and subpolar regions, and the tropical, originating over the subtropical zone. These intermix to no appreciable degree, so the discontinuity surfaces are generally zones of rapid transition termed "fronts." The cold front lies between the tropical current and the advancing polar air mass; it is marked by a sharp drop in temperature, decrease in humidity and a steady rise in barometric pressure. The warm front lies between the receding cold air and the tropical current: it is marked by rise in temperature and humidity and a falling barometric pressure.

Petersen[1] in this country and De Rudder[2] in Germany have demonstrated that passage of the above fronts exerts a very definite influence upon certain diseases (and symptoms) both as to onset and course. Proved statistically is the correlation between changing fronts and the following: Laryngeal croup, spasmophilia, eclampsia gravidarum, rheumatic pains, neuritic pains (tabes), lobar pneumonia, acute upper respiratory infections, hemoptysis, apoplexy, diphtheria, acute glaucoma. A highly probable correlation exists between weather

1 Petersen, W. F.: The Patient and the Weather, Edwards Brothers, Ann Arbor, 1935–1938.

2 De Rudder, B.: Grundriss einer Meteorobiologie des Menschen, Springer, Berlin, 1938.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

changes and angina pectoris, migraine, bronchial asthma, pertussis attacks, phlyctenula, herpes cornae, acetonemic vomiting, gallstone and kidney-stone colics, paroxysms in chronic malaria, appearance of new lepra lesions, onset of paralysis in poliomyelitis, onset of mental diseases, epileptic convulsions, scarlatina, certain skin diseases, death from coronary sclerosis. Maurer[3] has shown that postoperative complications (thrombosis, embolism, infection) are related to front changes. Interesting results concerning the passage of fronts and their relation to the onset of labor have been published by Jacobs[4] (Germany) and recently by Boedeker (A. M. A. meeting, 1939).

The exact mechanism of these effects is still insufficiently clear, but there is no doubt that the vegetative nervous system plays the rôle of receptor.

The practical conclusion derived therefrom is that, before undertaking major surgery (emergencies excepted) attention should be paid to the prevailing weather and the probable receptivity of the patient so that corresponding prophylactic measures be taken. Further, prophylaxis could well be instituted to obviate exacerbations in certain illnesses.

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AFFINITY OF LEAD FOR VITAMIN C

Clinical and laboratory evidence that there is an elective affinity between lead ions and ascorbic acid in the human body, is currently reported by Doctor Holmes[1] and his colleagues of Oberlin College. Such chemical affinity would not only suggest a new theory as to the toxic action of metallic lead, but would make plausible new methods of therapeutic attack. A possible clinical connection between lead and vitamin C was suggested to the Ohio biochemists by the similarity of the gum lesions in scurvy and severe lead poisoning. A group of thirty-four cases of industrial lead poisoning was, therefore, selected for study. Seventeen members of this group were given 100 milligrams ascorbic acid daily, but no other medication. There was a marked gain in subjective symptoms in all members of this group, a prompt improvement in blood picture, and decreased excretion of lead in the urine. In one typical case, for example, urinary lead, before beginning ascorbic acid administration, was 0.5 milligram per liter. Within two weeks, excretion fell to 0.1 mg. per liter, approximately that of normal urinary excretion. With the seventeen other members of this group the previous calcium gluconate treatment was continued, but was supplemented by 100 milligrams ascorbic acid daily. This group gained in health, but not so rapidly as the seventeen patients given vitamin C alone. Test-tube experiments led to the conclusion that ascorbic acid reacts with lead ions to form a poorly ionized and, therefore, relatively inert lead-ascorbic acid conjugate. Chemical analyses suggest that this relatively inert lead-ascorbate is excreted in the bile. The obvious conclusion drawn by the Ohio biochemists is that "men exposed to lead hazard should be advised to include in their diet plenty of such rich sources of vitamin C, as tomatoes (fresh or canned), raw cabbage, oranges or grapefruit, raw turnips, green peppers, cantaloupe, etc"; or to take 50 milligrams of ascorbic acid daily in addition to their usual diet. Detailed publication of their clinical evidence is promised for the near future.

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3 Maurer, G.: 20th Heft d. Vortraege aus d. prakt Chirurgie, Ferd. Enke, Stuttgart, 1938.

4 Jacobs, F.: Arch. Gynaek., 159:226, 1935.

1 Holmes, Harry N., Amberg, Edward J., and Campbell, Kathryn: Science, 89:322, (April 7), 1939.

Helpful Suggestions Given for Nursing in the Home.— Raising a patient's bed to the height of a standard hospital bed, twenty-seven inches, greatly lessens the strain on whatever member of his family may be acting as nurse, Elizabeth W. Hard, R. N., Greensville, North Carolina, advises in *Hygeia, The Health Magazine.*

This is one of her suggestions for making convalescence from a long illness as comfortable as possible for both patient and family.

"The bed can be elevated with bricks or wooden blocks placed under the legs," Miss Hard says. This not only helps the nurse but generally it is a better height for looking out of windows and in summer it is cooler.

If the patient is out of bed during the day and has difficulty getting back in a high bed, use a firmly placed chair or a child's "self help step," the author suggests.

"Sometimes covering can be a great annoyance," she points out. "If it is too heavy it is uncomfortable and over a long period might cause toe drop. Aside from a regular or home made bed cradle to hold up the weight of the bed clothes, wire clothes hangers can be useful. The bed clothes can be draped over the foot of the bed, then fastened over the bars of the hangers with snap clothes pins and the hooks fastened to the foot of the bed. This keeps the weight off the feet and yet keeps the covering in place."

If the bedrooms are not pleasant, the author advises that the patient be placed in the dining room, living room or even the kitchen. Furniture can be shifted to make this possible.

"A new outlook is highly exciting after months of seeing the world from one side," Miss Hard observes. "An adjoining room, adjacent porch or even a convenient hallway affords great relief and change if the bed can be occasionally shifted or the patient moved.

"If this is not feasible give the patient new scenes in the room. Change the pictures; place a screen near the bed and pin on it prints or magazine covers. Have growing plants in the room, anything from rye grass to sweet potato vines. But don't have too many plants or too highly scented flowers.

"A paper bag fastened to the mattress with safety pins or to the bedside table with adhesive tape can be used for discarded cleansing tissue, empty envelops or scraps of paper or cloth if the patient is cutting or sewing."

A table reaching across the bed, with a center panel to be used as a book rest, is a great convenience. "A wooden one can easily be made, with the advantage that a narrow ledge can be added which prevents toys from falling off or books from being pushed over the edge," says Miss Hard. "It can be pushed to the foot of the bed and be out of the way, yet easily available when not in use. If the patient is allowed to sit up to eat, it can be used at meal time."